

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Edwin A. Suominen Art Unit: : 2745*
Serial No. : 10/_____,_____
Filing Date : August 25, 2003 Examiner: : Kincaid, L.*
Title : Simplified High Frequency Tuner and Tuning Method

MAIL STOP PATENT APPLICATION
Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Express Mail Label No.: EU332760496 US

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Applicant discloses the following references, which are listed on Form PTO-1449 attached to this document. Each of these references was previously cited or submitted in at least one of the parents to this application, Serial Nos. 09/713,761; 09/317,781; and 10/032,526. Pursuant to MPEP 609, copies of the references are not included.

Please feel free to contact the undersigned if it would in any way advance prosecution of this application.

Respectfully submitted,



Edwin A. Suominen
Reg. No. 43,174

Dated: August 25, 2003

LOUIS J. HOFFMAN, P.C.
14614 North Kierland Boulevard
Suite 300
Scottsdale, Arizona 85254
(480) 948-3295

**List of Patents and Publications For
Applicant's Information Disclosure
Statement**

Serial No.: 10/____

Applicant(s): Edwin A. Suominen

Group: _____

Filed: August 25, 2003

U.S. PATENT DOCUMENTS

Examiner Initials	Document Number	Date	Name	Class	Subclass	§ 102(e) Date*
<i>*provided only for patents issued less than one year before applicant's earliest claimed filing date.</i>						
A	6,073,000	06/02	Shinohara	455	310	07/96
B	5,974,306	10/99	Hornak et al.	455	323	08/97
C	5,950,119	09/99	McGeehan et al.	455	302	09/97
D	5,887,247	03/99	Baltus et al.	455	277.2	11/97
E	5,875,212	02/99	Fleek et al.	375	329	10/94
F	5,828,955	10/98	Lipowski et al.	455	324	08/95
G	5,826,180	10/98	Golan	455	302	08/94
H	5,815,529	09/98	Wang	375	285	04/96
I	5,811,972	09/98	Thompson et al.	324	338	03/94
J	5,809,090	09/98	Buternowsky et al.	375	347	03/96
K	5,802,463	09/98	Zuckerman	455	208	08/96
L	5,784,418	07/98	Skypes et al.	375	347	04/95
M	5,784,414	07/98	Bruekers et al.	375	324	09/95
N	5,761,615	06/98	Jaffee	455	314	05/95
O	5,758,274	05/98	Vu et al.	455	246.1	03/96
P	5,742,274	04/98	Yoshida et al.	327	113	09/95
Q	5,734,976	03/98	Bartschi et al.	455	333	03/95
R	5,715,529	02/98	Kianush et al.	455	266	05/93
S	5,696,796	12/97	Poklemba	375	316	06/95
T	5,682,099	10/97	Thompson et al.	324	338	06/95
U	5,640,698	06/97	Shen et al.	455	323	06/95
V	5,619,206	04/97	Cole, Jr. et al.	342	37	11/95
W	5,588,025	12/96	Strolle et al.	375	316	03/95
X	5,548,244	08/96	Clewer	329	318	11/94
Y	5,528,633	06/96	Halik et al.	375	326	06/94
Z	5,461,643	10/95	LaRosa et al.	375	329	04/93
AA	5,438,329	08/95	Gastouniotis et al.	340	870.02	
AB	5,402,449	03/95	Schultes et al.	375	94	
AC	5,376,894	12/94	Petranovich	329	306	
AD	5,375,146	12/94	Chalmers	375	103	

Examiner: _____

Date Considered: _____

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AE	5,355,513	10/94	Clarke et al.	455	20	
AF	5,341,107	08/94	Bijker et al.	329	337	
AG	5,315,425	05/94	Van Deventer et al.	359	153	
AH	5,249,203	09/93	Loper	375	97	
AI	5,230,099	07/93	Loper	455	324	
AJ	5,214,796	05/93	Gorrie et al.	455	326	
AK	5,142,553	08/92	Rosenkranz	375	75	
AL	5,125,008	06/92	Trawick et al.	375	349	
AM	5,121,070	06/92	Tomita	329	304	
AN	5,010,399	04/91	Goodman et al.	358	85	
AO	5,003,621	03/91	Gailus	455	324	
AP	4,994,769	02/91	Kishi	332	170	
AQ	4,992,736	02/91	Stormont et al.	324	309	
AR	4,965,853	10/90	Barnard	455	209	
AS	4,953,182	08/90	Chung	375	97	
AT	4,944,025	07/90	Gehring et al.	455	207	
AU	4,914,408	04/90	Voorman	333	167	
AV	4,884,265	11/89	Schroeder et al.	370	70	
AW	4,864,643	09/89	French et al.	455	302	
AX	4,859,960	08/89	Standford et al.	329	126	
AY	4,803,700	02/89	Dewey et al.	375	77	
AZ	4,737,728	04/88	Nakamura et al.	329	110	
BA	4,675,882	06/87	Lillie et al.	375	345	
BB	4,584,715	04/86	Baars et al.	455	302	
BC	4,241,451	12/80	Maixner et al.	455	202	
BD	3,992,616	11/76	Acker	455	318	
BE	3,961,262	06/76	Gassmann	325	345	

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FOREIGN PATENT DOCUMENTS

Examiner <u>Initials</u>	Document <u>Number</u>	Date	Country	Class	Subclass	Translation <u>Yes / No</u>
BF	0 651 522 A1	05/95	EPO	H04B	01/26	
BG	0 351 156 B1	03/90	EPO	G01S	5/14	
BH	0 508 401 A2	04/92	EPO			
BI	0 595 277 A1	10/93	EPO			Yes
BJ	0 602 394 A2	11/93	EPO			
BK	WO 94/10756	05/94	PCT			
BL	WO 94/29948	12/94	PCT			

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OTHER ART

Examiner

Initials

	<u>Author, Title, Date, Pertinent Pages, Etc.</u>
BM	W. Baumberger, "A Single-Chip Image Rejecting Receiver for the 2.44 GHz Band Using Commercial GaAs-MESFET-Technology," in <u>IEEE Journal of Solid-State Circuits</u> , Vol. 29, No. 10, October 1994, pp. 1244-1249.
BN	T. Okanobu et al., "An Advanced Low Power Radio 1 Chip IC," in <u>IEEE Transactions on Consumer Electronics</u> , Vol. 40, No. 4, November 1994, pp. 842-851.
BO	D. Yamazaki et al., "A Complete Single Chip AM Stereo/FM Stereo Radio IC," in <u>IEEE Transactions on Consumer Electronics</u> , Vol. 40, No. 3, August 1994, pp. 563-569.
BP	R. van Gils et al., "2.5 Gbit/s CPFSK System with Low Central IF," in <u>Electronics Letters</u> , Vol. 30, No. 14, July 1994, pp. 1153-1154.
BQ	A. Abidi, "Radio-Frequency Integrated Circuits for Portable Communications," in <u>IEEE 1994 Custom Integrated Circuits Conference</u> , May 1994, pp. 151-158.
BR	G. Jacobsen, "Low IF Quadrature Optical High Sensitivity ASK Receivers," in <u>Electronics Letters</u> , Vol. 30, No. 13, June 1994, pp. 1026-1028.
BS	C. Demeure, "A Portable HF Transceiver with Digital IF," in <u>Fifth International Conference on HF Radio Systems and Techniques</u> , July 1991, pp. 290-294.
BT	D. Ehrhardt and T. Benkner, "Digital TV Receiver with a Low IF," in <u>IEEE Transactions on Consumer Electronics</u> , Vol. 39, No. 3, August 1993, pp. 331-339
BU	T. Okanobu, "Advanced Low Voltage Single Chip Radio IC," in <u>IEEE Transactions on Consumer Electronics</u> , Vol. 38, No. 3, August 1992, pp. 465-475.
BV	B. Henderson and J. Cook, "Image-Reject and Single-Sideband Mixers," <u>WT Tech-Note</u> , Vol. 12, No. 3, May/June 1985.
BW	"Low Cost RF Modem," <u>IBM Technical Disclosure Bulletin</u> , September 1986, pp. 1511-1513.
BX	J. Crols and M. Steyaert, "An Analog Integrated Polyphase Filter for a High Performance Low-IF Receiver," in <u>Proc. VLSI Circuits Symposium</u> , Kyoto, June 1995, pp. 87-88.
BY	J. Crols and M. Steyaert, "Low-IF Topologies for High-Performance Analog Front Ends of Fully Integrated Receivers," in <u>IEEE Transactions on Circuits and Systems</u> , Vol. 45, No. 3, March 1998, pp. 269-282.

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BZ L. Larson (ed.), RF and Microwave Circuit Design for Wireless Communications, Artech House, Boston, pp. 52-55 (excerpt from Chapter by Asad A. Abidi, UCLA).

CA A. Fernandez-Duran, et al., Alcatel, "Zero-IF Receiver Architecture for Multistandard Compatible Radio Systems," 46th IEEE Vehicular Technology Conference, May 1996, pp. 1052-1056.

CB F. Oscarsson and A. Lindblad, National Defence Research Establishment, Sweden, "Wideband HF Receiver With Digital Quadrature Splitting," 1993, pp. 1267-1271.

CC PHILIPS SEMICONDUCTORS, Specification Sheet, "Image Rejecting Front-end for GSM Applications, UAA2072M."

CD J. Paez-Borrallo and F. Casaju Quiros, "Self Calibrating Low IF Digital Image Rejection Receiver For Mobile Communications" (believed presented at conference Sept. 10, 1996).

CE F. Casaju Quiros and J. Paez Borrallo; "A Low If Image Rejection Receiver For DECT, RACE Mobile Telecommunications Summit, Cascais, Portugal, Nov. 22-24, 1995, Vol. 1.

CF J. Crols, et al., "A Single-Chip 900 MHz CMOS Receiver Front-End with a High Performance Low-IF Topology," IEEE Journal of Solid-State Circuits, Vol. 30, No. 12, December 1995, pp. 1483-1492.

CG J. Wuorinen, "A Fully Integrated 900MHz CMOS Double Quadrature Downconverter," 1995 IEEE International Solid-State Circuits Conference, Digest of Technical Papers, Castine, ME, First Edition, February 1995, pp.137-138.

CH P. Gray, et al., "Future Directions in Silicon ICs for RF Personal Communications," Proceeding of the IEEE 1995 Custom Integrated Circuits Conference, Berkeley, CA, May 1-4, 1995, pp. 83-90.

CI R. Hawley, et al., "A 300 MHz Digital Double-Sideband to single-Sideband Converter in 1 μ m CMOS," IEEE Journal of Solid-State Circuits, Vol. 30, No. 1, January 1995.

CJ J. Min, et al., "An All-CMOS Architecture for a Low-Power Frequency-Hopped 900 MHz Spread Spectrum Transceiver," IEEE 1994 Custom Intergrated Circuits Conference, Los Angeles, CA, pp. 379-382.

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